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ABSTRACT

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2 A security device having multiple security features is used
3 with an item, such as a secure document, ticket, label or tag, to
4 authenticate the item and/or encode data pertaining to the item.
5 One example of the security device includes a carrier substrate, a
6 metallic layer disposed on the carrier substrate, and a magnetic
7 layer disposed on the metallic layer in substantial registration
8 with at least a portion of the metallic layer, thereby providing
9 both metallic security features and magnetic security features.
10 The metallic layer and the magnetic layer also form graphic or
11 visually identifiable indicia on the carrier substrate to provide
12 a visual security feature. According to one method, the metallic
13 layer is applied to the carrier substrate, the magnetic layer is
14 applied to the metallic layer, and the layers are etched to form
15 the graphic indicia. The magnetic layer can, in one embodiment,
16 include a magnetic chemical resist that is printed on the metallic
17 layer in the form of the graphic indicia. The magnetic security
18 features use one or more magnetic characteristics, such as the
19 level of magnetism and decay rate characteristic of soft
20 magnetics, to authenticate and/or to encode data. The magnetic
21 security feature may also include magnetic tracks for recording
22 data. The metallic security features use different lengths of
23 conductive regions to authenticate and/or encode data.